

Organizational Safety Culture Self- Assessment for Transportation Agencies



FHWA-SA-24-027



U.S. Department of Transportation
Federal Highway Administration

ZERO IS OUR
GOAL
A SAFE SYSTEM IS HOW WE GET THERE

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16. Abstract Safety is the very foundation of every transportation agency's mission and enables the safe and efficient movement of road users across the country. While all transportation agencies (from State departments of transportation, to local, regional, and Tribal governments, to transit agencies) strive to guarantee safety for both their users and workers, their approaches to doing so vary widely. Agencies span a range of capability and maturity levels in building a strong safety culture within their agency, as well as levels of investment in their programs, technologies, and resources to enable safety policies and practices. The Federal Highway Administration developed a toolkit specifically geared toward organizational road safety culture, including both road safety and programmatic safety. The goal of the toolkit is to focus transportation agency resources and actions to systematically improve an agency's organizational road safety culture. This report contains a list of potential improvement strategies (which coincide with the self-assessment questionnaires).					
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SI* (MODERN METRIC) CONVERSION FACTORS

APPROXIMATE CONVERSIONS TO SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
in	inches	25.4	millimeters	mm
ft	feet	0.305	meters	m
yd	yards	0.914	meters	m
mi	miles	1.61	kilometers	km
AREA				
in ²	square inches	645.2	square millimeters	mm ²
ft ²	square feet	0.093	square meters	m ²
yd ²	square yard	0.836	square meters	m ²
ac	acres	0.405	hectares	ha
mi ²	square miles	2.59	square kilometers	km ²
VOLUME				
fl oz	fluid ounces	29.57	milliliters	mL
gal	gallons	3.785	liters	L
ft ³	cubic feet	0.028	cubic meters	m ³
yd ³	cubic yards	0.765	cubic meters	m ³
NOTE: volumes greater than 1000 L shall be shown in m ³				
MASS				
oz	ounces	28.35	grams	g
lb	pounds	0.454	kilograms	kg
T	short tons (2000 lb)	0.907	megagrams (or "metric ton")	Mg (or "t")
TEMPERATURE (exact degrees)				
°F	Fahrenheit	5 (F-32)/9 or (F-32)/1.8	Celsius	°C
ILLUMINATION				
fc	foot-candles	10.76	lux	lx
fl	foot-Lamberts	3.426	candela/m ²	cd/m ²
FORCE and PRESSURE or STRESS				
lbf	poundforce	4.45	newtons	N
lbf/in ²	poundforce per square inch	6.89	kilopascals	kPa

APPROXIMATE CONVERSIONS FROM SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
mm	millimeters	0.039	inches	in
m	meters	3.28	feet	ft
m	meters	1.09	yards	yd
km	kilometers	0.621	miles	mi
AREA				
mm ²	square millimeters	0.0016	square inches	in ²
m ²	square meters	10.764	square feet	ft ²
m ²	square meters	1.195	square yards	yd ²
ha	hectares	2.47	acres	ac
km ²	square kilometers	0.386	square miles	mi ²
VOLUME				
mL	milliliters	0.034	fluid ounces	fl oz
L	liters	0.264	gallons	gal
m ³	cubic meters	35.314	cubic feet	ft ³
m ³	cubic meters	1.307	cubic yards	yd ³
MASS				
g	grams	0.035	ounces	oz
kg	kilograms	2.202	pounds	lb
Mg (or "t")	megagrams (or "metric ton")	1.103	short tons (2000 lb)	T
TEMPERATURE (exact degrees)				
°C	Celsius	1.8C+32	Fahrenheit	°F
ILLUMINATION				
lx	lux	0.0929	foot-candles	fc
cd/m ²	candela/m ²	0.2919	foot-Lamberts	fl
FORCE and PRESSURE or STRESS				
N	newtons	0.225	poundforce	lbf
kPa	kilopascals	0.145	poundforce per square inch	lbf/in ²

*SI is the symbol for the International System of Units. Appropriate rounding should be made to comply with Section 4 of ASTM E380.
(Revised March 2003)

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LIST OF ACRONYMS

DOT	Department of Transportation
FHWA	Federal Highway Administration
HSIP	Highway Safety Improvement Program
ITS	Intelligent transportation systems
PPE	Personal protection equipment
RAISE	Rebuilding American Infrastructure with Sustainability and Equity
SS4A	Safe Streets and Roads for All

SELF ASSESSMENT TOOLKIT

INTRODUCTION

Although the transportation community has made significant safety improvements in the past decade, there is still much work to be done to keep the roads safe for all users of the transportation system. Thanks to the Safe System Approach, we remind ourselves that safety is a shared responsibility and safety commitment should start at “home”—within an organization.

Safety can be defined as the absence of risk or danger.¹ Road safety culture includes the shared values, actions, and behaviors that demonstrate a commitment to safety over competing goals and demands. Organizational road safety culture is one of two major aspects of road safety culture (the other aspect is public road safety culture). It is the extent to which an organization values and pursues road safety. In an organization that prioritizes organizational road safety culture, the organization emphasizes safety in its internal strategic plan and operation procedures and its employees make safe decisions when using the roads. Furthermore, in a transportation organization with a strong organizational road safety culture, employees understand safety as a priority and have safety in mind when planning, designing, constructing, and maintaining the road system. Employees regularly communicate the importance of road safety with colleagues. Leadership staff are vocal supporters of safety and empower employees to seek innovative approaches to improving safety even if safety is not explicitly a part of everyone’s job title.

The Federal Highway Administration (FHWA) developed a toolkit for transportation organizations like yours to determine the organization’s maturity level (i.e., degree of capability or readiness) of organizational road safety culture and identify opportunities for improvements. The goal of the toolkit is to focus transportation agency resources and actions to systematically improve an agency’s organizational road safety culture.

There are two parts of organizational road safety culture: **internal safety culture** and **programmatic safety integration**. With that in mind, the toolkit components are divided into these two focus areas.

Each focus area’s self-assessment has three components:

- **Questionnaires:** Two questionnaires that organizations can use to determine their levels of maturity across a variety of areas.
- **Improvement Strategies:** Example improvement strategies that organizations can use to advance their level of maturity for each area.

¹ <https://rspcb.safety.fhwa.dot.gov/RSF/Unit1.aspx>

- **Improvement Plan Template:** Template that organizations can use as a basis for developing a plan to implement their improvement strategies.

In addition, there are two companion documents: 1) a list of resources related to road safety culture; and 2) an instruction manual for using the toolkit.

This document contains the Improvement Strategies only. Each set of strategies corresponds to a self-assessment question. The discussions about improvement strategies are best addressed by a group of representatives from your organization (in a workshop format) rather than by each staff member. See the full toolkit for the other components and companion documents.

INTERNAL SAFETY CULTURE

Now that your organization has completed the questionnaire and determined your maturity level for each question (see the Organizational Safety Culture Self-Assessment for Transportation Agencies – Questionnaires document), the next step is to identify possible improvement strategies that your organization can implement to advance to the next highest or desired maturity level. This section includes suggested improvement strategies for each of the questions pertaining to internal safety culture. Your organization can select strategies that best fit your needs or adapt them to your specific situation. Your organization is not limited to the improvement strategies provided here. You are encouraged to identify additional or other improvement strategies that best meet your organizational needs. Results of this step can be used in the development of an improvement plan (see the Organizational Safety Culture Self-Assessment for Transportation Agencies – Improvement Plan Template document).

The improvement strategies are divided into the same five dimensions as those in the questionnaire:

1. Leadership
2. Policy
3. Capacity Building and Training
4. Employee Engagement
5. Organizational Commitment to Support Road Safety

The improvement strategies are organized by maturity level and refer back to the maturity levels and explanations for that specific dimension and question. Some improvement strategies occur at multiple maturity levels because they are introduced at a lower maturity level and are fully embedded in the organization at a higher level. In general, the maturity levels can be described as:

- Level 0 (None) – No engagement (or the organization has no information available to answer the question)
- Level 1 (Ad Hoc) – Minimal or sporadic engagement, perhaps done only as needed; policies and/or procedures do not exist
- Level 2 (Recognized) – Some engagement; policies and/or procedures may exist, but there is inconsistent application/adoption across the organization
- Level 3 (Mainstreamed) – Strong performance with consistency across the organization that is supported by formal (i.e., documented and actively managed) policies and procedures
- Level 4 (Optimized) – Strong performance with consistency across the organization, and mechanisms are in place to continually assess and improve organizational processes and procedures

Indicate which improvement strategy(ies) your organization may wish to pursue to advance to a higher maturity level for each question.

I. LEADERSHIP

1. To what degree does your organization prioritize road safety in its core values, strategic plan, and actions?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Advocate for road safety to be included as an organizational value, included in mission and vision statements, and for road safety goals to be included in strategic planning goals.	X			
2. Establish the expectation that senior leaders, managers, and supervisors will take appropriate actions to achieve road safety goals.		X	X	
3. Engage diverse representatives from across the organization to develop future road safety goals during strategic planning.			X	
4. Establish goals such as zero road fatalities and serious injuries for your organization.				X
5. Integrate road safety goals into other organizational goals.				X

2. To what degree do leaders (i.e., senior leaders, managers, and supervisors) prioritize road safety in their communication and activities?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Establish clear expectations among senior leaders, managers, and supervisors about prioritizing road safety.	X	X		
2. Provide summary of current road safety policies to all leaders and establish expectation that these policies are to be followed by all staff all the time.		X	X	
3. Provide speaking points to all leaders showing examples of how to		X	X	

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
Speak to staff about road safety policies and how to address common unsafe road-related behaviors.				
4. Make safety a standing item on staff meetings, etc.			X	
5. Establish expectation that all leaders are to participate in efforts to improve road safety such as awareness activities, training, road safety workgroups, after-incident reviews, etc.			X	X
6. Schedule regular reviews when leaders assess their engagement in efforts to improve road safety. Identify opportunities for future improvements.				X

3. To what degree does your organization include safety elements in leadership performance plans and reviews?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Add clear language in performance plans and reviews about expectations for leaders regarding promoting and supporting road safety efforts and policies and encouraging a strong safety culture with direct reports.	X	X	X	
2. Provide training for all leaders about expectations.	X	X	X	
3. Monitor participation by leaders in training about safety.			X	
4. Set up mechanisms whereby road safety planning efforts include regularly reviewing performance plans and reviews and identifying opportunities for improvement.				X

II. POLICY

4. To what degree does your organization integrate road safety into employee policies?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Assemble a team with diverse representation from across the organization and review current road safety policies. Identify gaps and areas needed for improvement (including comparisons with current State and local laws).	X	X	X	
2. Identify resources for sample policies and have team champion their adoption by the organization.	X	X	X	
3. Follow organizational procedures for adopting new policies.	X	X	X	
4. Develop or revise training on policies as needed. Implement training with all staff.	X	X	X	
5. Develop mechanisms whereby current policies are regularly reviewed; new laws, equipment, or circumstances trigger policy review; and ongoing efforts to improve road safety consider changing or adopting new policies.				X

5. To what degree do all employee performance plans and reviews include safety elements?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Add clear language in performance plans and reviews about expectations for all staff to participate in appropriate safety-related activities.	X	X	X	
2. Provide training for all staff about expectations.	X	X	X	
3. Include questions on reviews related to safety expectations to make sure supervisors and employees discuss these expectations during reviews.		X	X	

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
4. Set up mechanisms for regularly reviewing performance plans and reviews and identifying opportunities to improve safety elements.				X

III. CAPACITY BUILDING AND TRAINING

6. To what degree does new employee orientation/training address the state of road safety and current safety policies which reaches all new employees in a timely fashion?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Update (or if needed, create) employee training to include the state of road safety and current road safety practices and policies.	X	X		
2. Establish policies and procedures so that all new employees receive training in a timely fashion.		X	X	
3. Include mechanisms in the training like pre-/post-tests or follow-up assessments to measure level of knowledge after training. Improve training as needed.				X
4. Include mechanisms to regularly update training content to reflect new policies and noteworthy practices regarding road safety.				X

7. To what degree does ongoing training address road safety and road safety policies and reach all employees in a timely fashion?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Establish a policy that requires ongoing, periodic training on road safety and associated policies for all employees	X	X		
2. Update employee training to include current road safety practices and associated policies.	X	X		
3. Establish policies and procedures so that all employees receive periodic training in a timely fashion.	X	X	X	
4. Develop mechanisms to promote participation in additional training/certifications.				X

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
5. Include mechanisms in the training like pre-/post-tests or follow-up assessments to measure level of knowledge after training. Improve training as needed.				X
6. Include mechanisms to regularly update training content to reflect new policies, new equipment, or noteworthy practices regarding road safety.				X

8. To what degree does your organization have safety capacity building expertise to provide training, assist with safety policies, engage employees, etc.?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Identify appropriate ways to obtain more expertise including hiring staff, engaging outside consultants, and training current staff.	X	X	X	
2. Inventory existing expertise and share capabilities with leaders and across departments so that others can leverage existing expertise.			X	
3. Commit to developing internal resources or engaging consultants for critical ongoing activities like training, writing policies, engaging employees, etc.			X	
4. Engage internal staff or consultant to assess effectiveness of expertise. Identify needs for future training or expertise.				X

IV. EMPLOYEE ENGAGEMENT

9. To what degree do employees (i.e., technical and non-technical staff, safety and non-safety disciplines) promote and actively improve safety?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Survey employees to assess to what degree they champion safety. Alternatively, this could be assessed during training activities (assuming all employees regularly participate in road safety training).*				
2. Establish expectations during new employee and ongoing training about employees' responsibility to champion safety; to speak up if they are concerned about road safety; and how to use supportive, positive messages to reinforce safe behaviors.	X	X		
3. Train leaders on how to receive road safety concerns appropriately and how they should address potential concerns.		X	X	
4. Develop ways to recognize employees who are strong safety champions (e.g., annual awards, incentives, recognition in performance reviews).			X	
5. Add mechanisms to regularly assess whether employees champion safety. This could be assessed using a survey, interviews, or small groups. The results of the assessment should inform improvements to training.				X

* Survey can be used to obtain data to enable insight into this question (i.e., it is not an improvement strategy).

10. To what degree do employees understand their role in promoting safety in their work programs?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Survey employees to assess employees' understanding of their role in promoting safety in their work programs. Alternatively, this could be assessed during training activities (assuming all employees regularly participate in road safety training).*				
2. Include promoting safety in employee performance plans and reviews.	X	X		
3. Review current work program procedures and checklists and revise as needed to include safety as a priority.	X	X		
4. Provide guidance and establish expectations during new employee and ongoing training about how employees should promote safety in their work programs and how they can support safety in other work programs.	X	X		
5. Establish expectations among leaders about promoting safety in their employees' work programs.		X	X	
6. Provide mechanisms where employees can share their experiences and cross-train other employees. This could be done by capturing brief case studies or examples and sharing them internally and/or during training.				X
7. Add mechanisms to assess and monitor how well employees promote safety in their work programs. The results of the assessment should inform improvements to training.				X

* Survey can be used to obtain data to enable insight into this question (i.e., it is not an improvement strategy).

11. To what degree do employees embrace being a safe road user as part of their shared responsibility for roadway safety?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Survey employees to assess to what degree employees embrace being a safe road user. Alternatively, this could be assessed during training activities (assuming all employees regularly participate in road safety training).*				
2. Establish expectations during new employee and ongoing training that employees behave safely when using the roads (as a pedestrian, bicyclist, transit rider, or driver).	X	X		
3. Train leaders on expectations for employees and on how they can support employees in embracing this philosophy.		X	X	
4. Add mechanisms to assess and monitor how well employees embrace this philosophy. The results of the assessment should inform improvements to training.				X

* Survey can be used to obtain data to enable insight into this question (i.e., it is not an improvement strategy).

12. To what degree do employees (i.e., technical and non-technical staff, safety and non-safety disciplines) lead or are engaged in road safety efforts in their own communities outside of work?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Survey employees to assess to what degree employees lead or are engaged in road safety efforts in their own communities. Alternatively, this could be assessed during training activities (assuming all employees regularly participate in road safety training).*				

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
2. Use new employee and ongoing training to share ways that employees can serve as safety ambassadors in their communities.	X	X		
3. Provide employees resources and time to engage in road safety efforts in their communities.		X	X	
4. Have the organization as whole sponsor or support a road safety effort in the community.		X	X	
5. Train leaders on ways to encourage and recognize employees who engage in road safety projects in their communities (e.g., public recognition, awards).		X	X	
6. Provide mechanisms where employees can share their experiences and cross-train other employees. This could be done by collecting and sharing stories of employees' activities in internal newsletters, local papers, on social media, or in training.				X

* Survey can be used to obtain data to enable insight into this question (i.e., it is not an improvement strategy).

V. ORGANIZATIONAL COMMITMENT TO SUPPORT ROAD SAFETY

13. To what degree does your organization set the expectation that road safety is elevated/advanced in all programs?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Establish road safety as an organizational value.	X	X		
2. Establish expectations that road safety should be elevated/advanced in all programs in policies.		X		
3. Review and update all operating procedures to elevate/advance safety.		X	X	
4. Establish (or leverage existing) internal communication to regularly		X	X	

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
remind and share examples of elevating/advancing safety.				
5. Establish expectations that leaders are to consistently communicate expectations about road safety in all programs and decisions (as per policies).		X	X	
6. Establish safety as a priority on final approval processes (e.g., on projects, programmatic policy documents, equipment purchasing).		X	X	
7. Train leaders on how to navigate challenging situations with demands (e.g., budget, deadlines, mobility) competing with safety.		X	X	
8. Add mechanisms to regularly review and update policies and train appropriate staff about changes.				X

14. To what degree does your organization make road safety equipment available and to what degree do employees use it?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Clarify expectations of staff responsible for identifying and procuring road safety equipment.	X	X		
2. Include questions about access to and use of appropriate safety equipment (including PPE) in performance plans and reviews.		X	X	
3. Identify need for (and deliver if appropriate) training on road safety equipment.		X	X	
4. Educate appropriate leaders and staff about expectations about using road safety equipment.		X	X	
5. Create a group that regularly reviews quality and use of existing road safety equipment and identifies opportunities to improve.				X

15. To what degree does your organization consider safety in equipment/vehicle purchasing (or leasing) decisions?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Establish procedures and/or policies requiring that purchasing and leasing decisions consider safety.	X	X		
2. Educate appropriate decision makers about procedures and policies and about state-of-the-art safety features.		X	X	
3. Update relevant policies and training about new safety features when new equipment/vehicles are acquired.			X	X
4. Empower and require appropriate decision makers to stay informed of				X

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
new equipment that may perform better and be safer.				

16. To what degree does your organization have an effective organization-wide road safety culture workgroup?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Gain commitment from leadership for an ongoing, organization-wide, road safety culture workgroup. Identify which senior leader is responsible.	X	X		
2. Recruit members that provide diverse representation from across the organization and at all levels.	X	X		
3. Obtain training for the members on road safety culture and on ways to grow organizational culture.			X	
4. Identify a process to guide the workgroup. Establish a regular meeting schedule.			X	
5. Identify and gather appropriate data to guide the workgroup.			X	
6. Prioritize needs and develop and seek approval for an action plan.			X	
7. Establish and implement mechanisms to rotate in new members of the workgroup.				X
8. Periodically review membership and identify key roles that may be missing.				X
9. Invest in ongoing training for the workgroup members to improve their effectiveness.				X
10. Periodically review effectiveness of the committees/workgroups and identify ways to improve.				X

17. To what degree does your organization have committees or workgroups dedicated to road safety issues (pedestrians/bicyclists, speed, Complete Streets, etc.)?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Gain commitment from leadership for committees or workgroups dedicated to road safety issues. Assign leaders to facilitate the committees/workgroups. Allow staff time to participate and provide resources to support training and activities.	X	X		
2. Identify road safety issues and create appropriate committees/workgroups. Smaller organizations may have a single committee/workgroup.		X		
3. Have committees/workgroups develop a work plan.		X	X	
4. Establish regular meeting schedules and procedures for recruiting diverse members from across the organization.			X	
5. Have committees/workgroups identify and engage in training to improve their capacity.			X	
6. Establish and implement mechanisms to recruit new members and rotate leadership of the committee/workgroup.				X
7. Periodically review effectiveness of the committees/workgroups and identify ways to improve.				X

PROGRAMMATIC SAFETY INTEGRATION

Now that your organization has completed the questionnaire and determined your maturity level for each question (see the Organizational Safety Culture Self-Assessment for Transportation Agencies – Questionnaires document), the next step is to identify possible improvement strategies that your organization can implement to advance to the next highest or desired maturity level. This section includes suggested improvement strategies for each of the questions pertaining to programmatic safety integration. Your organization could select strategies that best fit your needs or adapt them to your specific situation. Your organization is not limited to the improvement strategies provided here. You are encouraged to identify additional improvement strategies that best meet your organizational needs. Results of this step can be used in the development of an improvement plan (see the Organizational Safety Culture Self-Assessment for Transportation Agencies – Improvement Plan Template document).

The improvement strategies are divided into the same five dimensions as those in the questionnaire:

1. Planning and Programming
2. Design and Engineering
3. Safety and Operations
4. Safety Assurance and Evaluation
5. Institutionalizing Safety

The improvement actions are organized by maturity level and refer back to the maturity levels and explanations for that specific dimension and question. Some improvement strategies occur at multiple maturity levels because they are introduced at a lower maturity level and are fully embedded in the organization at a higher level. In general, the maturity levels can be described as:

- Level 0 (None) – No engagement (or the organization has no information available to answer the question)
- Level 1 (Ad Hoc) – Minimal or sporadic engagement, perhaps done only as needed; policies and/or procedures do not exist
- Level 2 (Recognized) – Some engagement; policies and/or procedures may exist, but there is inconsistent application/adoption across the organization
- Level 3 (Mainstreamed) – Strong performance with consistency across the organization that is supported by formal (i.e., documented and actively managed) policies and procedures

- Level 4 (Optimized) – Strong performance with consistency across the organization, and mechanisms are in place to continually assess and improve organizational processes and procedures

Indicate which improvement strategy or strategies your organization may wish to pursue to advance to a higher maturity level for each question.

I. PLANNING AND PROGRAMMING

1. To what degree does your organization engage external safety professionals and stakeholders to influence planning and programming decisions?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Develop a list of key external stakeholder groups and/or professions that should be engaged in current and future planning and programming efforts.	X	X		
2. Formalize relationships with key external stakeholder groups and/or professions that should be engaged in current and future planning efforts.	X	X		
3. Integrate external stakeholder engagement activities or checkpoints at regular intervals throughout the planning and programming phase for safety-focused (HSIP-funded) projects		X		
4. Integrate external stakeholder engagement activities or checkpoints at regular intervals throughout the planning and programming phase for all projects.			X	
5. Include a process and communication plan in the current planning and programming processes to integrate external stakeholder feedback.			X	
6. Establish a formal committee composed of representatives of diverse external stakeholder groups to be engaged on an on-going basis.			X	
7. Ensure that resources (e.g., funding, administrative, technical) for external stakeholder engagement efforts for planning and programming is sufficient.			X	
8. Periodically review process for considering external stakeholder feedback, funding levels, and implementation procedure for improvements.				X
9. Regularly review engagement to identify and formalize relationships with external stakeholder groups and/or professions that are traditionally underrepresented in planning and programming efforts.				X
10. Track metrics (e.g., demographics, participation rate) for external stakeholder engagement on all projects to identify gaps and areas for				X

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
improvement.				

2. To what degree does your organization engage internal safety professionals and stakeholders to influence planning and programming decisions?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Develop a list of key internal stakeholders across disciplines that should be engaged in current and future planning and programming efforts.	X	X		
2. Expand current planning and programming processes to include specific steps for engaging a multidisciplinary group of internal stakeholders in the development of safety-specific plans.		X	X	
3. Establish a formal committee composed of representatives of internal stakeholder groups across disciplines to be engaged on an on-going basis.			X	
4. Develop mechanisms to ensure that internal stakeholder suggestions and contributions to safety-specific plans, which are determined to be valuable and effective, are incorporated into the organization's safety-specific plan development process.			X	
5. Periodically review the internal stakeholders engaged to ensure well-informed input into safety-specific plans.				X
6. Periodically review process for obtaining, considering, and implementing internal stakeholder feedback into every safety-specific plan.				X

3. To what degree does your organization evaluate safety data and other safety considerations during the planning and programming phase?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Identify safety data and considerations that should be evaluated as inputs at the planning and programming phase.	X			
2. Identify national, State, and local data resources and tools that should support data collection at the planning and programming phase.	X	X		
3. Formally integrate safety data evaluation as a step in planning and programming processes to ensure consistent safety data evaluation across plans, programs, and projects.		X	X	
4. Formally and consistently use safety data to prioritize projects in the planning and programming processes.			X	X
5. Identify gaps and limitations in existing data and data tools (e.g., modal gaps, geographical gaps).			X	
6. Develop strategies for filling identified data gaps or addressing data limitations.			X	
7. Review and implement Traffic Records Coordinating Committee voluntary standards and guidance for improving the management, quality, and analysis of traffic safety data.			X	
8. Periodically evaluate data types and sources to ensure relevance, reliability, and overall quality.				X
9. Periodically explore relevant and reliable qualitative data sources to supplement data gaps or limitations.				X
10. Develop process and procedure for collecting qualitative and quantitative data to help explore the implications of planning and programming decisions on groups/demographics that may be underrepresented in existing data sources (e.g., elderly, low-income communities, communities of color).				X

4. To what degree does your organization apply holistic safety approaches to guide project planning and programming decisions and business processes?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Identify holistic safety approaches and opportunities to align the organization's safety priorities and goals with the approach's principles.	X			
2. Connect with peer organizations to exchange noteworthy practices related to integrating holistic safety approaches into the planning process and decision-making for HSIP or safety-related projects.	X			
3. Incorporate holistic safety approaches in the planning and programming processes of safety-related projects.		X		
4. Identify the data needed to inform metrics that enable a holistic assessment of transportation system performance (e.g., post-crash care performance, multimodal impacts, injury and fatality data).		X		
5. Identify and utilize tools and resources to best address data needs.		X		
6. Develop or amend formal planning and programming processes to integrate components and considerations from holistic safety approaches into all projects.			X	
7. Review business practices related to planning and programming and identify practices to enhance them through integration of holistic safety approach considerations.			X	
8. Proactively and consistently seek new tools and approaches to better identify and mitigate risks in the transportation system.			X	X
9. Codify the organization's commitment to holistic safety approach principles in organizational policies.				X

5. To what degree does your organization coordinate with other jurisdictions/organizations to identify and incorporate safety goals into other Tribal, Federal, State, regional, and local transportation plans?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Conduct an assessment to identify organizations within your jurisdiction that share transportation safety concerns.	X			
2. Foster relationships with staff at the identified organizations and engage in peer exchange.	X			
3. Work with organizations to identify opportunities to coordinate on current or future planning processes.		X		
4. Collaborate with organizations to create or leverage an existing multi-jurisdictional planning advisory body composed of technical and non-technical representatives.			X	
5. Establish a formal process for engaging a multi-jurisdictional planning advisory body in the development of shared safety goals.			X	
6. Adjust the existing plan development process to ensure inclusion of shared safety goals into all transportation plans across jurisdictions/organizations.			X	
7. Periodically review the safety concerns identification process and advisory body membership and refine as needed.				X

6. When making planning and programming decisions, to what degree does your organization assess and prioritize projects based on their ability to improve system safety?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Identify the data needed to enable effective evaluation of safety impacts.	X			
2. Identify tools, methods, approaches, resources, and noteworthy practices to accurately assess safety performance of project decisions.	X	X		
3. Engage peer organizations to identify strategies for prioritizing safety in the programming process.		X		
4. Utilize tools, resources, and/or metrics to assess safety performance when prioritizing projects.		X		
5. Develop formal programming process or revise existing process to include safety as a criterion in project prioritization.			X	
6. Ensure formal programming process gives priority to projects that best contribute to the overall safety of the transportation system.			X	
7. Engage safety professionals and subject matter experts to ensure mitigations and safety solutions effectively support system safety.			X	
8. Periodically review project programming process and criteria.				X

7. For non-safety projects (e.g., non-HSIP projects), to what degree does your organization allocate and prioritize funding for project components that have the potential to improve safety?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Identify safety-related mitigations or project components and their costs.	X			
2. Identify internal and external funding sources for safety-related project components.	X	X		
3. Incorporate safety component funding identification as a formal step in the programming process.			X	
4. Allocate and prioritize funding to advance project components that enhance safety.			X	
5. Periodically review projects to ensure funding used to advance safety led to improved outcomes.				X
6. Periodically review identified safety-related project components for their effectiveness.				X

II. DESIGN AND ENGINEERING

8. To what degree does your organization make safety a consideration at every step of the design and engineering phase?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Review and formalize existing design and engineering processes.	X			
2. Identify safety concerns and potential mitigations during each stage of the design and engineering phase.	X			
3. Review past design decisions, and existing policies, practices, components, and criteria to identify opportunities to integrate safety considerations.	X	X		
4. Develop a list of safety-related questions/considerations relevant to each step of the design and engineering phase and formalize review of these questions/considerations.		X		
5. Leverage research and resources to identify opportunities to consistently integrate safety considerations into each component of the design and engineering phase for all projects.		X	X	
6. Formally amend design and engineering processes to incorporate safety strategies for each stage.			X	
7. Periodically review processes that have incorporated safety strategies at each design and engineering phase for relevance and performance.				X

9. To what degree does your organization encourage designers to optimize designs for safety and not focus solely on meeting design standards?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Promote safety in the goals and objectives of design and engineering efforts.	X			
2. Identify strategies for implementing safety practices in alignment with goals and objectives.	X			
3. Identify and provide designers and engineers with access to trainings and other educational resources related to safety in the design and engineering phase of transportation projects.	X			
4. Connect with peer organizations to share substantive safety design practices.	X	X		
5. Utilize FHWA resources and guides to integrate a performance-based practical design (PBPD) or other flexible design approach into the organization's design and engineering processes.		X		
6. Develop a process for identifying and leveraging data driven safety analysis (DDSA) tools and techniques to compare and select design alternatives on all projects.		X		
7. Develop or update design manuals to support improving safety for all users of the transportation system, provide practices for assessing and evaluating safety performance, and provide guidance on when and how to use safety countermeasures			X	
8. Add approaches and values such as Context Sensitive Solutions, Complete Streets, Safe System Approach, and equity as considerations in design decision-making.			X	
9. Include statements on safety considerations in design as a part of requests for proposal (RFPs).			X	
10. Request examples of safety inclusion in design from prospective contractors as a part of RFP submissions.			X	

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
11. Periodically review PBPD design decisions and the organization's use of the substantive safety approach to identify room for growth and enhancements.				X

10. To what degree do organizational policies and procedures encourage and enable designers and engineers to identify and implement effective, low-cost safety improvements?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Integrate evaluation of low-cost safety solutions as a formal component of organizational policies and procedures.	X			
2. Identify and revise project development policies and/or procedures that inhibit designers and engineers from implementing low-cost safety improvements		X	X	
3. Provide designers and engineers with the training and education needed to enable them to successfully identify and implement effective, low-cost safety improvements		X	X	
4. Provide designers and engineers with tools and resources that will enable them to optimize the safety performance of project decisions.		X	X	
5. Develop or amend policies and/or procedures to prioritize safety improvements with the greatest impact on the system's overall safety performance.			X	
6. Periodically evaluate effectiveness of policies and procedures to ensure alignment with noteworthy practices in the selection of effective, low-cost safety improvements.			X	X
7. Identify leadership and staff champions to vocally support design and engineering approaches that encourage identification and implementation of effective, low-cost safety improvements				X

11. To what degree does your organization use data-driven safety analysis methods to determine the current and future safety performance of a project?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Provide training on data-driven safety analysis methods, approaches, and tools.	X	X		
2. Periodically review opportunities to incorporate the safety office's safety analysis results from network screening, other relevant safety data, and past efforts (e.g., predictive, systemic analysis, RSAs, telematics) for use by design and other project development staff on all projects.		X	X	
3. Identify and update policies and procedures to conduct safety performance assessments throughout the project development stage on all projects.		X	X	
4. Periodically review policies and procedures for their ability to incorporate safety performance assessments on all projects. Revise as needed.			X	X
5. Identify policies and procedures to perform evaluations of projects that use safety performance assessments to identify and install additional countermeasures with the project, including before and after crash data (or other metrics); use results to optimize implementation of countermeasures that are working well.			X	X

12. To what degree does your organization employ holistic approaches (e.g., Safe System Approach) when designing projects?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Identify and research holistic safety approaches like the Safe System Approach or Complete Streets.	X			
2. Evaluate the transportation system to identify a full range of roadway users, their needs, and safety risks.	X			
3. Engage post-crash stakeholders (e.g., first responders, crash investigators) to incorporate the needs of post-crash care into the design of all projects.	X	X		
4. Research and integrate strategies to address inequalities in the transportation safety investments for all users including negative impacts from historic investments.	X	X		
5. Incorporate a data-driven approach into the selection of countermeasures or strategies for all projects and road user including prioritizing fatal and serious injury crash data as a metric.		X		
6. Integrate holistic safety approach principles into organizational goals and design and engineering objectives.		X		
7. Review and amend road design and management policies and procedures to encourage application of Complete Streets and Safe System elements and principles on all projects. (See <i>Safe System Policy-based Alignment Framework</i> in Resource List).			X	
8. Research and integrate evaluation practices and policies that promote the benefits of safety approaches outside infrastructure improvements.				X
9. Periodically review policies and procedures for their ability to improve system safety. Revise as needed.				X

13. To what degree does your organization use a process for evaluating and integrating new safety technologies and systems into project design or engineering?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Utilize safety information clearinghouses (i.e., CMF Clearinghouse) and industry organizations to identify potential new technologies and research their impact.	X			
2. Leverage existing analysis, research, and publications prepared by research centers, institutes, and Federal agencies on new and emerging safety technologies.	X	X		
3. Connect with peer and professional organizations to exchange noteworthy practices and experiences with new technologies.		X		
4. Explore Tribal, Federal, State, and local grant programs aimed at funding research, testing, and deployment of safety technologies.		X		
5. Develop a formal, holistic safety-based screening process and framework that includes components such as policy and legislative coordination, public outreach and education, implementation, infrastructure and technology, funding and financing, etc.			X	
6. Integrate the new technology screening process into the project development process to ensure consideration of new technologies across all projects.			X	
7. Commit to and join a Pooled Fund study.			X	
8. Develop a multifaceted evaluation program to assess the performance of newly adopted technologies and the overall technology evaluation and integration process.				X

III. SAFETY AND OPERATIONS

14. To what degree does your organization use Intelligent Transportation Systems (ITS) systematically to monitor safety conditions and enable real-time safety management?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Collaborate with planning staff to identify safety needs and goals throughout the transportation system and allocate funding for ITS in transportation plans and Transportation Improvement Programs (TIPs).	X			
2. Survey existing ITS technologies within the transportation system and identify areas with gaps in safety monitoring and safety management across all roadway user modes (e.g., privately owned vehicles, transit, trucks).		X		
3. Leverage FHWA's ITS Joint Program Office research and resources to explore ITS noteworthy practices, costs, deployment evaluation benefits, and lessons learned to identify potential ITS solutions that address safety needs and goals.		X		
4. Develop and document a strategic plan for ITS integration that is intermodal, multi-jurisdictional (as needed), and addresses short- and long-term safety needs and goals.			X	
5. Identify and pursue trainings for engineers, data scientists, operational staff, and other transportation management personnel to ensure accurate data collection, analysis, and system maintenance.			X	
6. Identify opportunities to better leverage ITS to enhance safety for high-risk groups (e.g., school zones, work zones, pedestrians, travelers with disabilities, emergency responders).			X	
7. Develop success criteria by which ITS can be monitored, evaluated, and tested for vulnerabilities, and new systems can be identified to address emerging safety needs.				X

15. To what degree do organizational policies mandate routine evaluation and maintenance of roadway components that impact safety?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Review existing routine roadway maintenance procedures and processes to identify gaps in service or safety risks related to maintenance concerns.	X			
2. Develop and document an “as built” plan that incorporates elements such as a complete job index, location and observation, roadway features, type of vehicle use, safety components, and other “as built” features.	X	X		
3. Develop a roadway maintenance plan or asset management plan that documents the types of maintenance activities that should be expected for each road type, including the party responsible for providing the service, the service frequency or timetable, the costs and potential sources.		X		
4. Leverage research and resources on noteworthy management practices for routine road maintenance with consideration for enhancing public safety, protecting natural resources, and incorporating the community context.			X	
5. Integrate an evaluation system into the existing road maintenance program or asset management plan in order to examine the effectiveness of the maintenance plan and work.				X

16. To what degree do accessible processes exist to allow staff and the public to report safety concerns identified on the roadway or roadside?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Leverage research and resources related to current industry practices regarding the design, development, operation, maintenance, and use of reporting tools for travelers.	X	X		
2. Review existing user condition reporting tools present in the roadway and identify gaps in service or accessibility.		X		
3. Develop a comprehensive suite of communication tools to provide travelers with multiple formats through which to report a wide variety of safety concerns.		X		
4. Expand accessibility of communication tools by anticipating the needs of diverse users (e.g., travelers with disabilities, language barriers).			X	
5. Implement a feedback system to enable travelers to provide comments regarding the effectiveness and accessibility of the communication tools.			X	X
6. Institute periodic evaluation of communication tools to assess their effectiveness and identify accessibility challenges or areas for improvement.				X

17. To what degree is the public made aware of mechanisms to report safety concerns identified on the roadway or roadside?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Review existing public awareness approach and identify gaps in awareness methods or accessibility to awareness methods.	X			
2. Regularly include information about reporting mechanisms in public safety campaigns, online formats, and print materials.		X		
3. Collaborate with community-facing public safety groups and/or organizations to enhance awareness.		X		
4. Collaborate with community stakeholders to identify challenges to public adoption and strategize solutions. Ensure engagement of underrepresented groups and groups with special needs.			X	
5. Integrate evaluation of public awareness campaigns and other communication tools into community engagement processes.				X

18. To what degree does your organization implement safety protocols, proven countermeasures, and/or noteworthy practices in the design and operation of work zones?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Develop information resources for work zone designers and managers regarding types of safety protocols, proven countermeasures, and/or noteworthy practices in work zone design and operation.	X	X		
2. Identify training gaps and needs and develop trainings related to safety protocols, proven countermeasures, and/or noteworthy practices.	X	X		
3. Amend the work zone design and operation process to ensure consistent			X	

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
implementation of safety protocols, proven countermeasures, and noteworthy practices on all projects.				
4. Establish an analytical framework for assessing the effectiveness of implemented safety protocols, proven countermeasures, and/or noteworthy practices.			X	
5. Establish a mechanism to periodically review and update adopted protocols, countermeasures, and practices.				X

19. To what degree does your organization use a process for evaluating safety performance in work zones following construction or maintenance projects?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Identify outcome measures relative to mobility, safety, customer satisfaction, and/or work productivity/efficiency that are specified or implied in the organization's work zone safety and mobility policy.	X			
2. Identify available data sources and data collection methods needed to analyze measures of interest to the organization.	X	X		
3. Develop procedures to utilize outcome-based measures for work zone process reviews and update work zone policies and procedures.		X	X	
4. Establish a "dashboard" of key work zone performance measures that can be continually updated and viewed by personnel across the organization and other agencies.			X	X

IV. SAFETY ASSURANCE AND EVALUATION

20. To what degree does your organization use metrics to evaluate the safety performance of the transportation system?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Define safety performance metrics needed to evaluate the safety performance of all users of the transportation system.	X			
2. Survey existing safety data sources and data collection methods. Identify resources to close data gaps related to identified safety performance metrics.	X	X		
3. Incorporate safety performance metrics within the organization's goals and project planning and development process.		X		
4. Consistently assess and document data related to the organization's safety performance metrics and goals throughout the project planning and development process.			X	
5. Periodically review safety performance metrics for value and relevance in assessing safety priorities and strategies. Revise as needed.				X

21. To what degree does your organization document and integrate lessons learned and noteworthy practices into future projects as they relate to the performance of safety strategies and countermeasures?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Conduct and document de-briefings after projects to obtain input on successes, lessons learned, etc. Ensure multi-disciplinary participation.	X	X		
2. Amend project development process to institutionalize project review and evaluation.		X	X	

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
3. Establish a “dashboard” or repository of key lessons learned that can be continually captured, updated, and referenced in the development of future projects.			X	
4. Regularly assess compiled lessons learned and determine which should be incorporated as noteworthy practices in organization standards, manuals, guidance, etc.			X	
5. Periodically engage with other organizations to facilitate peer exchange.			X	
6. Periodically review past projects to evaluate the effectiveness of selected mitigations or noteworthy practices on safety outcomes.				X

22. To what degree does your organization use a system to identify areas of safety concern, evaluate risk, and apply strategies to improve system safety?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Conduct and document de-briefings after projects to obtain input on successes, lessons learned, etc. Ensure multi-disciplinary participation.	X	X		
2. Amend project development process to institutionalize project review and evaluation.		X	X	
3. Establish a “dashboard” or repository of key lessons learned that can be continually captured, updated, and referenced in the development of future projects.			X	
4. Regularly assess compiled lessons learned and determine which should be incorporated as noteworthy practices in organization standards, manuals, guidance, etc.			X	
5. Periodically engage with other organizations to facilitate peer exchange.			X	

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
6. Periodically review past projects to evaluate the effectiveness of selected mitigations or noteworthy practices on safety outcomes.				X

V. INSTITUTIONALIZING SAFETY

23. To what degree do existing manuals and specifications across program areas integrate safety?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Inventory and evaluate existing manuals to identify specific gaps in safety considerations.	X			
2. Develop information resources for staff regarding proven safety considerations to supplement existing manuals and specifications across program areas.	X	X		
3. Integrate safety checkpoints through the project process to ensure consistent consideration for safety throughout the project lifecycle.		X	X	
4. Establish a mechanism to periodically review and update procedures to incorporate best practice safety solutions to design, engineering, and operations.				X

24. To what degree does your organization evaluate, fund, and promote access to safety trainings and certifications for staff?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Survey staff to identify existing skills, competencies, skill gaps, and training needs.	X			
2. Develop a safety information repository (includes safety tools, education resources, and safety promotion resources) relevant for staff in safety-related positions, field maintenance staff, and construction staff.		X		
3. Develop or expand safety information repository (includes safety tools, education resources, and safety promotion resources) relevant for all staff.			X	
4. Establish a procedure to evaluate and promote staff educational			X	

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
opportunities across program areas.				
5. Collaborate with other organizations to provide staff with access to trainings and certifications.			X	
6. Formally promote and incentivize approved trainings and educational opportunities to staff across program areas.				X
7. Establish a feedback mechanism to ensure suggestions regarding training and skill needs inform future decision making.				X

25. To what degree does your organization have dedicated staff responsible for public outreach and relationship building around road safety challenges, safety initiatives, and community concerns?

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
1. Develop a comprehensive list of audiences (e.g., community stakeholders, advocates, small businesses) and develop a framework to determine when and how to engage the public around road safety challenges, initiatives, and concerns.	X			
2. Establish regular meetings with community partners to mitigate existing risks and proactively identify safety concerns.		X		
3. Identify staff or hire new staff to serve as dedicated champions and facilitate public outreach as their sole work responsibility.			X	
4. Evaluate public outreach framework through an equity lens to identify and mitigate impediments to outreach (e.g., language barriers, lack of representation, accessibility challenges).			X	
5. Identify staffing requirements and skill sets needed to execute on the organization's public outreach framework or strategy. Recruit as needed.			X	

Improvement Strategy	Maturity Level Progression			
	None to Ad Hoc (0 to 1)	Ad Hoc to Recognized (1 to 2)	Recognized to Mainstreamed (2 to 3)	Mainstreamed to Optimized (3 to 4)
6. Periodically review community engagement strategy and staffing capacity and collect feedback from the public regarding public participation. Revise the framework as needed.				X

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